

CHAPTER 3:

How and What to Pack

Storms move in quick at McMurdo Station, located on Ross Island, Antarctica.



There will be several stops on your journey to Antarctica. Various transportation providers (U.S., foreign, vessel, military) have differing baggage allowances and restrictions. Please adhere to the limitations set forth by each carrier. In New Zealand or Chile you will pick up Extreme Cold Weather (ECW) clothing. You may require personal items for the various climates, work, and activities. Planning and prioritizing are very important. Read this chapter carefully.

BAGGAGE ALLOWANCES

Commercial Carriers

You will travel from your airport of departure to Christchurch, New Zealand, or Punta Arenas, Chile, on commercial carriers. Following are **typical** commercial carrier baggage allowances.

Check-in baggage: up to two pieces weighing **no more** than 23 kg (50 lbs) per piece. Winter participants are automatically given an excess baggage coupon for the airline and are allowed three pieces. Checked baggage in excess of 23 kg (50 lbs) is **not** allowed by the airlines. **Use the USAP cargo system for large/heavy baggage.** *Baggage allowances on flights from Christchurch to McMurdo differ from your commercial allowance.*

Carry-on: one carry-on that must fit in the overhead bin, or under the seat in front of you. Linear dimensions are a maximum of 157 cm (62 inches) = width + length + depth.

NOTE: When you transfer to foreign airline carriers (e.g., QANTAS, Lan Chile) baggage limitations change. These limitations will be confirmed at the time your request is received. These limitations can vary from an allowance of two to three checked bags and range from a limitation of 7-23 kg (15-50 lbs) per piece. **Updates regarding travel are posted at www.usap.gov and should be consulted before departure.**

Flights From Christchurch to McMurdo Station

Summer Participants: up to 34 kg/75 lb of personal baggage.

Winter Participants: up to 66 kg/145 lb of personal baggage.

NOTE: Realize that the weight of the ECW gear issued to you in Christchurch will be counted as part of your baggage. Typically the ECW clothing weighs about 13 kg/30 lb. You are required to wear (or have on your person) the following items on the flight:

Balaclava	Boots
Fleece jacket	Fleece pants
Furback mittens	Long underwear
Neck gaiter	Parka
Wind pants	Sunglasses
Windproof mittens	Wool socks

The rest of the issued clothing (about 4 kg/10 lb) can be packed in your checked baggage.

DSG

Have a travel question? The Deployment Specialists Group has the latest travel information posted online at www.usap.gov. If you can't find the answer there, give them a call.

1.800.688.8606, prompt 2

Research Vessels and Palmer Station

There are no weight restrictions for personal baggage on the research vessels, although space is at a premium onboard.

Excess Baggage

If additional baggage is required, it is strongly recommended to use the USAP cargo system. If you must have the item with you, an approved Request for Excess Baggage Form (Form RPSC PA-A-100c) must be obtained from RPSC DSG. This form must be approved by RPSC prior to the time a deployment date is confirmed.

Any costs related to excess baggage will not be reimbursed without prior approval. Anyone reporting for embarkation with unauthorized excess or oversized articles (such as bicycles or skis) will be personally responsible for the costs of excess baggage or storage if the items are refused by the airline. If such items are accepted by an airline and forwarded, you may be required to arrange for storage facilities. This applies to both northbound and southbound travel.

NOTE: Secured storage is available for items you will not need while in Antarctica (summer clothing, camping gear, etc.). See the end of this chapter.

NOTE: Requests and approvals for excess baggage must be made again for your return trip from McMurdo Station and on to your airport of departure. Approved requests for excess baggage are only one-way approvals.

NOTE: Excess baggage shipped to or from Antarctica through the cargo system is also subject to inspection for customs violations, government property, and narcotics.

NOTE: Individuals are responsible for insuring their goods against loss.

Personal Baggage Insurance

Baggage insurance is provided if RPSC issues your airline tickets. If a claim needs to be processed, contact the DSG. Loss protection is limited and supplemental personal property insurance is suggested.

Loss protection is not provided for other than during commercial flight segments. Should a loss occur during transit to/from the airport, while in a hotel, during your stay in Antarctica, etc., it is the participant's responsibility to retain personal property insurance coverage.

Mailing Personal Packages

If you need to take more than 34 kg/75 lb of baggage to McMurdo or South Pole Stations, you can mail boxes to yourself at the **Air Post Office (APO)** address in Antarctica. The APO addresses are listed in Chapter 6. You should be aware, however, that NSF priorities dictate that all science cargo and flat mail take priority over any personal packages. Your personal packages may be

substantially delayed.

Once you are in Antarctica you can have mail sent to you. However, the Air Post Office (APO) in Christchurch will not accept packages for shipment unless they are received via the Postal Service. This means you cannot order items via the Internet from Antarctica for courier delivery (i.e., FedEx) to the APO. The Post Office will not accept such deliveries.

Near the end of the season many program participants realize that they've accumulated more than they will be allowed to have with them on their flight north. This excess must be sent in the mail. It is important to pay attention to announcements about mailing deadlines and procedures for mailing personal packages from Antarctica. The timelines and options differ according to the station and the time of year.

APO Privileges

Upon your arrival in Christchurch, the RPSC representative will give you a card that entitles you to use the APO facility. This benefit provides a tremendous cost savings if you need to mail boxes to the U.S. from New Zealand. The card is good for only 10 days from your arrival in Christchurch. Any mail received by the APO after the valid 10 day period, will be returned to sender.

Unwanted in Antarctica!

Waste management procedures and this law affect what you take to Antarctica. Use this list when packing, and share it with those who may mail you packages.

PROHIBITED

Polystyrene packing. These beads, chips, and peanuts pose a threat to wildlife.

House plants and non-sterile soil. Introduction of non-indigenous species (except food) is prohibited.

Hazardous and toxic substances. Many common consumer products are on this very long list.

DISCOURAGED

Aerosols. Pressurized containers of deodorant, hair spray, and shaving cream. These items become hazardous waste because of their ingredients or because they are pressurized.

Non-reusable plastic containers; such as shampoo and lotion bottles and film cans. Buy single containers large enough to meet your needs or repack items in reusable containers. Take extras and empties back home with you.

Dry cell batteries such as mercury, alkaline, and lithium cells. Buy rechargeables and a recharger. Try to select devices that use a common battery size.

Magazines, catalogs, newspapers, and junk mail. The library has reading matter, and news and sports are available on TV and the computer net. Do not forward your mail to Antarctica.

Small appliances. If you must bring them, mail or carry them out when you leave. Hot plates are forbidden.

OTHER RECOMMENDATIONS

Buy biodegradable soaps and shampoos.

Buy pump sprays, sticks (deodorant) and tubes (shaving cream), not aerosol containers.

Repack your personal products. Camping outfitters sell various containers. Ziplock bags are good for aspirin, vitamins, and prescription drugs (keep the labels).

Cushion items in whole (not shredded) newspaper or clothing. Reuse boxes and packing you receive in the mail.

Take all your belongings with you when you leave.

Participate in the waste management segregation and recycling program.

Suggest new ideas for waste reduction.



National Science Foundation, 4201 Wilson Boulevard, Arlington, Virginia 22230

APO service is **not available for Palmer Station** participants. See Chapter 6 for instructions on mailing boxes and flat mail to Palmer Station and the research vessels.

HOW TO PACK

Personal comfort in Antarctica is important. So is environmental protection. When choosing items to make your stay more comfortable, buy and take with you items that are as environmentally friendly as possible. Try to use biodegradable soaps and shampoos, which will have less impact on the local environment. You need not do without little luxuries in Antarctica as long as you take the time to select items with the least environmental impact and package them frugally.

Eliminate the use of aerosols. The propellants in some aerosols can deplete the ozone layer, and aerosol cans create a disposal problem. Find substitutes for aerosols such as roll-on deodorants, shaving creams in a tube, and other non-aerosol products.

Eliminate as many plastic and throwaway containers as possible. This will help reduce the volume of solid waste disposal in Antarctica. Repackage products that come in throwaway containers into containers you are more apt to take home with you. If possible, use the backpacker's rule—pack it in, pack it out. Please cooperate with the established recycling program.

Share the "Unwanted in Antarctica" list with friends and family who may be mailing you packages.

WHAT TO PACK

Below is a brief narrative and list of some items you may be considering for your personal list of what to pack. The items listed are meant as a guide only, and should be adjusted to individual needs and preferences. Wintering personnel, for example, should increase the quantities, while official visitors and others who are scheduled for only a few days in Antarctica will require less.

Your point-of-contact can give you specific advice about what you might need depending on your length of stay and the antarctic facility at which you reside.

There may be some special or brand name products, such as vitamins, your favorite cold remedy, aspirin, and/or toiletries that you may require during your antarctic assignment. The Station Store at each facility carries a limited supply of toiletries, gift items, film, batteries, snacks, pop, etc. Your supervisor or team leader can give you a good idea of what items are stocked in the store at the station or ship where you will be working. Planning on purchasing items from the Station Store during your stay will help reduce the amount you have to pack in to Antarctica.

Toilet articles. Antarctica is very dry and it is recommended that you use hand lotion and lip balm. The Station Store carries a limited selection of these items along with other toiletries. There is no Station Store aboard the research ships.

Prescription medications. Make sure you have enough prescription medication to last the length of your stay, including any travel time. The medical facility **cannot** refill prescription medication. Most health plans only allow one month of medication refills at a time. Human Resources at RPSC can assist you in coordinating with your health insurance and will help you obtain sufficient quantities of your pre-

PERSONAL ITEMS TO CONSIDER TAKING

CLOTHING ITEMS:

Boots or shoes; work, climbing, hiking, insulated as needed for your work
Glasses; eye and sun, extra pair, record of prescription
Gym clothes and shoes for athletics
Jacket; pile and windbreaker
Pajamas
Pants; cotton, denim
Shirts; light wool or cotton flannel, long-sleeve (machine washable)
Slippers or soft shoes for indoor wear
Sock liners; polypropylene or Thermax
Socks; cotton and wool
Sweaters; heavy and light
Swimsuit (for sauna)
Towel and washcloth
Underwear

MISCELLANEOUS:

Alarm Clock
Batteries; rechargeable is best
Camera/Camera batteries
Day pack
Hair Dryer
Hobby, craft items (small)
Holiday attire
Laundry bag
Lock, combination or key
Prescription medications
Sewing kit
Skis; skate/cross country
Small sentimental items
Tape/CD player
Toilet articles; sunblock, toothpaste, dental floss, soap, comb, razor, shave cream, deodorant, cosmetics, skin lotion, tampons, a carrying case

scription to last your entire deployment and travel. Remember that customs regulations require that prescription drugs be hand-carried (not placed in checked baggage) and that the labels be intact.

STATION STORE

Each Station Store normally carries the following items. This list can vary slightly due to the remoteness of the stations and fluctuating supply and demand. Snacks, drinks, souvenirs and other items are also sold.

Baby Oil	Feminine Hygiene	Sewing Kits
Body Soap	Pads	Shampoo
Combs	Hair Brushes	Shaving Cream
Dental Floss	Hair Conditioners	(non-aerosol)
Deodorants	Lip Balms	Sunscreen SPF 30
Eye Care Solution,	Lotions	Tampons
Multi Purpose	Mouth Wash	Toothbrushes
Eyeglass Repair	Nail Clippers	Toothpaste
Kits	Powder, Talcum	Tweezers
Facial Tissue	Razors	

Pain relievers such as aspirin and cold capsules (non-prescription) are usually available for purchase at Station Stores. Quantities and brand names are unpredictable however, and it is suggested that you bring your preferred pain relievers to Antarctica. Also, if you re-pack them to conserve space, retain their original labels.

Indoor clothing choices are up to you. You bring your own regular indoor clothing, including underwear, socks, shirts, and pants. Washable clothing is recommended, and dry cleaning is not available. The use of polyester double knit fabric is not recommended as it is not sufficiently warm. Base the quantity of clothing you bring on recommendations from your point-of-contact, the length of stay in Antarctica and the type of work you will be doing.

Special clothing (climbing boots, cold-weather gear, etc.). If you are experienced in antarctic or cold weather conditions, you may add your own cold weather gear for field use. Grantees may

request, through their NSF program manager, funding for additional clothing that is not part of the standard ECW clothing issue.

Sheets. The U.S. Antarctic Program does supply linens, pillows and blankets for the beds.

Laundry. Washing machines and dryers are conveniently located and are free to use. Laundry detergent is also provided free.

Layering. The temperature both inside buildings and outside can vary dramatically. The best way to manage these changes is by layering your clothing. This will allow you to shed or add layers quickly and easily. Several thin layers are more effective than one bulky layer.

Electric power. Power in Argentina, Chile, and New Zealand is 230 volts, 50 hertz. Not all hotels in these countries have converters for U.S. electrical appliances, which operate at 110-120 volts. Bring your own converters and plug adapters for appliances, such as hair dryers. Research vessels and U.S. Coast Guard ships have both 220- and 110-volt power. U.S. antarctic stations use 110-volt systems.

Semi-formal attire (a coat and tie or a skirt/dress) is suggested if you expect to attend formal functions, holiday parties, meetings, or evening meals in New Zealand, South America, at McMurdo Station, and aboard some ships. Ask your point-of-contact.

Feminine hygiene supplies are available at the Station Store. Brand selection is limited, but necessary supplies are normally available. Women may wish to bring items and brands they prefer.

Towels and washcloths. The U.S. Antarctic Program does **not** provide towels and washcloths in Antarctica, although it does provide towels on *R/V Laurence M. Gould* and *R/V Nathaniel B. Palmer*. Also, many hotels in New Zealand and South America do not provide washcloths. It is recommended that a small towel and washcloth be part of your hand carry.

Sunscreen. Carry and use a sunscreen with an SPF number of 15 or greater (range 2 - 50). Ensure that it provides both UVA and UVB coverage and that the product expiration date does not occur during your stay. In summer the sun is up 24 hours a day, and its reflection off snow and ice multiplies the potential for sunburn.

Sunglasses. Sunglasses or goggles are critical. Depending on your job description, your ECW clothing issue may include ski-type UV protective goggles, and/or sunglasses. Although non-polarized/non-prescription sunglasses will be part of your clothing issue, everyone is *strongly encouraged* to bring 2 pair of their own sunglasses. Make sure they provide 100% UV protection. Frames should be plastic, rather than metal, to avoid freezing to the skin. Consider wrap-around temples, side shields, nose guards, or other features to protect from harsh sunlight and reflections off the snow that may go around your dark lenses. If you wear prescription glasses, then you



should also bring prescription sunglasses. The same features are recommended. Eye protection is your responsibility.

RPSC Employees will be reimbursed up to \$175 for prescription sunglasses every other year.

Prescription eyeglasses and contact lenses. If you wear glasses, carry a record of your prescription to Antarctica. You should take a spare pair with you. The cost of eyewear replacement is your responsibility and the means to obtain replacements is limited. It is also suggested that you carry contact lenses on your person to avoid possible damage from freezing.

Contact lenses have been found to work fine in the Antarctic. Lens cleaning supplies are available at the Station Store at McMurdo in limited quantities and brands. Regular saline and sensitive saline solutions for soft contact lenses are available. Heat type solution is not available. You may wish to bring enough personally desired items to last your entire stay.

Recreation gear (skis, bikes, musical instruments, etc.). The variety and availability is different at each facility. You may wish to send your own recreational gear depending on the facility and your length of stay. Your point-of-contact can give you specific information.

CD/cassette player. Antarctic stations rely primarily on CDs and cassettes for music. Blank tapes and some CDs are normally stocked at the Station Store. You may want to take some of your favorite music with you.

Attire en route. While dress may be informal en route to and in both New Zealand and South America, you are requested to remember that in your own way you are representing the United States, the National Science Foundation and your research institution, and that your appearance (and conduct) will be noted. Avoid inappropriate conduct during travel.

New Zealand. Weather conditions change rapidly. Cold temperatures and rain can be expected even during the spring and summer months. Lightweight rain gear, as well as a warm sweater or jacket, are recommended.

Chile. The climate in Chile is changeable and can be quite cold especially in Punta Arenas. Lightweight rain gear plus a warm sweater or jacket are recommended.

Strict regulations regarding proper attire (extreme cold-weather clothing) on flights and cruises to and from Antarctica will be explained during clothing issue in Christchurch or Punta Arenas.

Antarctic clothing. You will be issued extreme cold weather (ECW) clothing as you pass through New Zealand or Punta Arenas. Special arrangements will be made if you are taking other routes to Antarctica. This clothing will include outer garments necessary for warmth and dryness, pile jackets and pants, gloves, thermal boots, insulated underwear, and other items. Depending on your work, you may also be issued special safety gear (hard hats, gloves, goggles, etc.).

Proper clothing fit and functionality are important to achieve maximum protection. You should check each individual item to ensure that it fits correctly, that the zippers work, and quantities are correct. If you expect to gain weight while in Antarctica, which is common, select clothing that fits loosely.

The clothing issued to you is U.S. Government property. You are required to return it in New Zealand or South America during redeployment, even if you think it may be of no further use. You are responsible for maintenance of issued clothing in your possession. Some issued clothing, especially parkas, is subject to theft, and you should take care to prevent loss. Abnormal damages or unreported loss of clothing will result in your being billed for repair or replacement costs. Report immediately the theft of any U.S. Government property to the NSF Representative, Antarctica, or the Station Manager. It is illegal for you to mail government property from Antarctica.

It is illegal for individuals to buy or sell government property, including clothing.

NOTE: Understand that while the U.S. Antarctic Program will provide you with what you need for outdoor clothing, participants may bring their own long underwear, heavy socks, etc. to wear if they prefer, when not in flight. Ask your point-of-contact for more information.

What Not To Pack

Plants, seeds, and animals. The Antarctic Treaty, which all participants must adhere to, prohibits the importation of any seeds, plants (except food plants under controlled conditions for use in the greenhouse), or animals to Antarctica. Additionally prohibited is the removal of any materials such as wood, bone, eggshells, feathers, and plant or animal parts, unless specifically authorized by permit issued from the NSF.

Commercial or other business activities. You may not market or sell clothing or finished articles printed, manufactured, or assembled outside Antarctica. You may not import materials to finish and market such items locally. Federal law forbids the use of an APO address for the shipment of articles or materials used in private resale operations. The U.S. Antarctic Program also prohibits use of government transportation for shipment of goods and materials for unauthorized personal business activities.

Hazardous Materials. Explosive gases, flammables, oxidizers, poisons, radioactive material, corrosives and other hazardous materials may not be shipped as baggage or mail. See Chapter 4: Science Cargo.

Baggage Organization and Labeling

Your personal belongings and ECW clothing will normally be carried from Christchurch to McMurdo in two orange bags issued to you as part of your ECW gear in Christchurch. You can also take your own suitcases or bags as long as the total weight of all bags combined does not exceed the established limits or you have authorization in advance for excess baggage (see the beginning of this chapter). One of your orange bags, plus your additional suitcases/bags, will be placed in the hold cargo area of the airplane and will not be available during the flight.

Your second orange bag will be a carry-on bag, and should consist of some ECW clothing (see Chapter 5), a change of clothes, and toilet articles to use in the event of a delay. Your carry-on bag will probably not be available to you during the flight. The air crew often collects the carry-on bags and straps them down in one pile to accommodate space/weight/balance restrictions. For this reason, it's a good idea to extract anything you may need during the flight (gloves, dark glasses, books, snacks, lip balm, water bottle, etc.) and place them in the pockets of your parka.

The size of your carry-on bag, which must not exceed 61x38x23 centimeters (24x15x9 inches), will be inspected as you check in at the Antarctic Passenger Terminal.

Laptops are accepted as hand-carry in addition to the normal hand-carry bag. The Air Force loadmaster has the final say in baggage and cargo loading in military aircraft. You may not bring sharp objects aboard planes: if you are bringing a pocket knife, scissors, or other sharp objects, stow them in your checked baggage. Your baggage will be inspected and may be reviewed using various measures including a drug detection dog.

If you are traveling to Antarctica on a research vessel, the amount of baggage you will have access to can be very limited. You should pack the items you'll need for the five day ocean journey in a small piece of luggage. Any baggage you store in the cargo area will be inaccessible during the journey.

Mark all your bags, including those you carry aboard, clearly with tags. Also place identification inside each bag. Do not lock your luggage as airline security may need access to it. Mark boxes with a stencilled or painted address. Include your assigned antarctic station, the initials "U.S. Antarctic Program," "RPSC" or event number, and return address. If you are using boxes previously shipped to Antarctica, please take special care to eliminate any old cargo markings or placards.

Any **Do Not Freeze (DNF)** equipment should not be included in your checked or hand-carry baggage. Use the U.S. Antarctic Program Cargo system to protect it from freezing (see Cargo, chapter 4).

Other Personal Equipment. Personal baggage may also include delicate scientific instruments that must be hand-carried. You are responsible for handling personal baggage throughout the trip to and from Antarctica, unless it is checked as air cargo. If delicate instruments are to be

moved as air cargo, clearly mark any handling requirements on the container. Handling personal baggage includes customs clearances in New Zealand, Chile, and the U.S. when returning from Antarctica. Pack baggage securely in easily handled containers.

STORAGE AVAILABILITY

In New Zealand

There is a limited amount of storage space available at the U.S. Antarctic Program Clothing Distribution Center (CDC) in Christchurch to leave items not needed in Antarctica. Some examples of items you might leave behind are summer clothing, business suits, street shoes, backpacking equipment, books that you have finished reading, and souvenirs acquired on the trip south to New Zealand.

This service is not provided solely for your personal benefit. It reduces the amount of materials airlifted to and from Antarctica, freeing capacity for timely movement of needed U.S. Antarctic Program materials, possibly including yours.

There will not be much time to spend sorting through your baggage before checking in for your flight to McMurdo Station. Plan ahead and organize your baggage and any items for storage in advance.

U.S. Antarctic Program participants who wish to use their personal dive equipment, bicycles, or camping gear while in New Zealand, may mail the items to themselves in care of the CDC. These items should not be mailed more than 60 days prior to your arrival in Christchurch. Items received after your departure to Antarctica will be held in the CDC warehouse secured baggage storage room until you redeploy from Antarctica. You will have access to this service for the duration of the time indicated on your privilege card for APO services (see page 59). After that time has expired, or if determined you are no longer an active participant, the article(s) will be returned or forwarded, if a forwarding address is available. The address is as follows:

[your name; project # or RPSC]
c/o NSF Contractor Representative
PSC 467 Box 296
APO AP 96531-1034
HOLD IN CHRISTCHURCH

The New Zealand Ministry of Agriculture and Forestry (MAF) is now assessing a fee (average NZ\$7) to clean/fumigate items (i.e., dirty hiking boots, tent poles, etc.) left in Christchurch while you are in Antarctica. These items will remain in MAF custody at the U.S. Post Office in Christchurch until arrangement has been made to pay the fee.

In Chile

Limited secure storage space is available in Punta Arenas for participants to store items they do not want to take to Antarctica, such as clothing to be used after leaving Antarctica and science equipment used in multi-year projects. Coordinate with AGUNSA officials upon arrival in Punta Arenas to have items stored. ■